

CLAIMS

What is claimed is:

- 5 1. A method for controlling medical systems, comprising:
determining available voice commands within a medical system control scheme;
graphically displaying the available voice commands;
receiving one or more voice commands corresponding to one or more of the
available voice commands; and
10 implementing the one or more voice commands to control the medical system.
2. The method of claim 1, wherein the available voice commands are
recognizable by a voice recognition control system at a current point in a menu tree and
are graphically displayed at an interface of the medical system.
- 15 3. The method of claim 2, wherein the voice recognition control system is
configured for “command and control” and the available voice commands are
automatically displayed.
- 20 4. The method of claim 1, further comprising indicating receipt of the one
or more voice commands.
5. The method of claim 4, wherein indicating receipt of the one or more
voice commands comprises at least one of producing a sound, activating a light,
25 graphically displaying a color, and graphically highlighting a displayed command.
6. The method of claim 1, further comprising determining and graphically
displaying further available commands at the interface of the medical system.
- 30 7. The method of claim 1, wherein the medical system is at least one of a
picture archival communication systems (PACS), hospital information systems (HIS),

radiology department information systems (RIS), a magnetic resonance imaging (MRI) system, a computed tomography (CT) imaging system, and an ultrasound imaging system.

5 8. A method for controlling medical systems with voice recognition control, comprising:

 determining recognizable voice commands that control a medical system;

 displaying the recognizable voice commands at an interface of the medical system;

10 receiving one or more voice commands corresponding to the recognizable voice commands; and

 executing the one or more voice commands to control the medical system.

15 9. The method of claim 8, wherein the recognizable commands are displayed in a popup box of contextual voice cues.

20 10. The method of claim 8, wherein the recognizable voice commands are recognizable at a given point in a menu tree of a voice control system of the medical system.

25 11. The method of claim 10, wherein the recognizable voice commands are a subset of the total configured voice commands of the voice control system of the medical system.

30 12. The method of claim 11, wherein the voice recognition control system incorporates "command and control."

35 13. The method of claim 8, further comprising indicating receipt of the one or more voice commands at the interface of the medical system.

14. The method of claim 9, wherein the user acknowledges indication of the one or more voice commands initiates execution of the one or more voice commands to control the medical system.

5 15. The method of claim 8, wherein the medical system is at least one of a picture archival communication systems (PACS), hospital information systems (HIS), radiology department information systems (RIS), a magnetic resonance imaging (MRI) system, a computed tomography (CT) imaging system, and an ultrasound imaging system.

10 16. A method for using a voice recognition control system to control a medical system comprising:

navigating through a menu tree of a voice recognition control system of a medical system;

15 reviewing available voice commands that are graphically displayed;

speaking one or more voice commands that correspond to one or more of the available voice commands.

20 17. The method of claim 16, wherein the available voice commands comprise commands that are recognizable at a current point in the menu tree and that are a subset of the total configured commands in a "command and control" voice recognition control scheme.

25 18. The method of claim 16, wherein the available voice commands are automatically displayed in a popup box of contextual voice cues.

30 19. The method of claim 16, further comprising verifying receipt of the one or more voice commands by the voice recognition control system that controls the medical system.

20. The method of claim 19, further comprising acknowledging system receipt of a delivered voice command to initiate execution of the voice command.

21. The method of claim 16, further comprising further navigating through the menu tree.

22. The method of claim 16, wherein the medical system is at least one of a medical information system, a medical diagnostic system, and a medical information and diagnostic system.

23. A system for controlling a medical system comprising:
a control system configured to recognize and implement received voice commands to control a medical system;
a control interface that graphically displays available voice commands that are recognizable at a particular point in a control scheme of the control system; and
wherein the control interface is configured to indicate recognition and receipt of a user voice command that corresponds to the available voice commands.

24. The system of claim 23, wherein the particular point is a present point in the control scheme.

25. The system of claim 24, wherein the available voice commands are automatically displayed.

26. The system of claim 23, wherein the control scheme is a “command and control” scheme.

27. The system of claim 23, wherein the medical system is at least one of a medical information system, a medical diagnostic system, and a medical information and diagnostic system.

28 The system of claim 27, wherein the medical system is a PACS and the control interface is a PACS workstation.

29. The system of claim 28, wherein the available voice commands are
5 displayed on a PACS workstation monitor.

30. A system for controlling a medical system comprising:
a control system configured to recognize and execute voice commands uttered
by a user to control a medical system; and

10 a graphical user interface that displays recognizable voice commands that correspond to a real time position within a menu tree of the control system.

31. The system of claim 30, wherein the graphical user interface is configured to indicate control system receipt of a voice command uttered by the user and
15 recognized by the control system.

32. The system of claim 31, wherein the control system is configured to execute received voice commands upon acknowledgement by the user.

20 33. A control system for controlling a medical system comprising:
means for recognizing and applying voice commands uttered by a user to control a medical system;

means for graphically displaying acceptable voice commands at an interface of the medical system; and

25 means for indicating recognition and receipt of one or more voice commands uttered by the user which correspond to one or more of the acceptable voice commands.

34. The control system of claim 33, comprising means for employing a control scheme that incorporates "command and control" and where the acceptable
30 voice commands are voice commands that are recognizable and available at a particular position in the control scheme.

35. The system of claim 33, comprising means for the user to acknowledge indication that the control system has recognized and received the uttered voice command before the control system applies the uttered voice command to control the medical system.

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36. A computer program, provided on one or more tangible media, for controlling a medical system, comprising:

a routine for determining available voice commands within a medical system control scheme;

10 a routine for graphically displaying the available voice commands at an interface of the medical system;

a routine for receiving one or more voice commands corresponding to one or more of the available voice commands; and

15 a routine for implementing the one or more voice commands to control the medical system.

37. A computer program, provided on one or more tangible media, for controlling a medical system, comprising:

20 a routine for recognizing and applying voice commands uttered by a user to control a medical system;

a routine for graphically displaying acceptable voice commands at an interface of the medical system; and

25 a routine for indicating recognition and receipt of one or more voice commands uttered by the user which correspond to one or more of the acceptable voice commands.